

Waste Management Disposal)	Departmental
Services of Maine)	Findings of Fact and Order
Somerset County)	Air Emission License
Norridgewock, Maine)	Amendment #1
A-816-71-B-A)	

After review of the air emission license minor modification application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Waste Management Disposal Services of Maine (WMDSM) of Norridgewock, Maine was issued Air Emission License A-816-71-A-N on October 30, 2001, permitting the operation of emission sources associated with Phase 11 of their landfill facility in Norridgewock, Maine (the "Crossroads Landfill").

WMDSM has requested an amendment to their license to:

1. Increase the flare design capacity from 24.6 MMBtu/hr (820 SCFM) to 40 MMBtu/hr (1,350 SCFM) to help mitigate odor problems at the landfill,
2. Include an emergency generator not previously licensed at the facility,
3. Change the SO₂ emission rate to 9.11 #/hr due to gas composition variability.

B. Emission Equipment Changes

Process Equipment Change

<u>Equipment</u>	<u>Design Capacity</u>	<u>Process Flow Rate</u>	<u>Stack #</u>
Landfill Gas Oxidation Unit	40.5 MMBtu/hr	1,350 SCFM	#1

SCFM = Standard Cubic Feet per Minute

Emergency Equipment Addition

Equipment	Max. Capacity (MMBtu/hr)	Fuel, %S	Power Output (Hp)
Diesel Generator	1.01	Diesel fuel, 0.05% S	144

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as given in Maine’s Air Regulations. This modification is determined to be a minor modification and has been processed as such.

II. MINOR MODIFICATION DESCRIPTION

A. Flare Changes

WMDSM has decided to increase the flare design capacity from 24.6 MMBtu/hr (820 SCFM) to 40 MMBtu/hr (1,350 SCFM) to help mitigate odor problems at the landfill. Due to gas composition variability at the site, the SO₂ emission rate has been increased to 9.11 #/hr.

B. 144 Hp Emergency Generator

Emission limits from the generator were calculated using EPA AP-42 emission factors for diesel engines smaller than 600 horsepower.

Visible emissions from the diesel unit shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

C. Revised Facility Emissions

Total Allowable Annual Emissions for the Phase 11 Landfill

(based on a 12 month rolling total)
(used to calculate the annual license fee)

Pollutant	Tons/year
PM	6.1
PM ₁₀	6.1
SO ₂	39.9
NO _x	13.3
CO	67.5
VOC	0.36
HAP	0.11

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor modification shall be determined on a case-by-case basis.

A SCREEN3 screening model was run to determine if the predicted impacts from the Norridgewock Landfill would meet all MAAQS. The results of the analysis indicate the revised emissions from the flare are below all respective MAAQS.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-816-71-B-A, subject to the conditions found in Air Emission License A-816-71-A-N and in the following conditions:

The following replaces Condition (16) of License A-816-71-A-N:

- (16) Landfill Gas Flare (Oxidation Unit)
- A. The oxidation unit has a maximum design capacity of 40.5 MMBtu/hr. WMDSM shall not exceed the following emissions.

Oxidation Unit Emission Limits

<u>Pollutant</u>	<u>lb/hr</u>
PM	1.39
PM ₁₀	1.39
SO ₂	9.11
NO _x	2.79
CO	15.35
VOC	0.06
HAP*	0.03

* HAP emissions are as specified in source application A-816-71-A-N, Attachment 2 and in Departmental Regulation Chapter 115, Appendix B. (See attached HAP list.)

- B. Visible emissions from the oxidation unit shall not exceed 5% opacity except for 5 minutes in any 2-hour period.
- C. The landfill gas flare shall be operated with a flame present at all times.

The following are new Conditions:

- (22) Emergency Generator
- A. The Emergency Generator shall be limited to 500 hours per year of operation, based on a 12 month rolling total. An hour meter shall be installed, operated and maintained on the unit.
- B. The sulfur content of the fuel shall be less than or equal to 0.05% by weight documented by fuel receipts from the supplier.
- C. A log documenting the dates, times and reasons of operation for the generator shall be kept.

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D. Emissions from each diesel generator shall not exceed the following:

Pollutant	lb/hr
PM	0.31
PM ₁₀	0.31
SO ₂	0.05
NO _x	4.45
CO	0.96
VOC	0.35

E. Visible emissions from the diesel generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than 2 six minute block averages in a 3 hour period.

(23) This amendment shall expire concurrently with Air Emission License A-816-71-A-N.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application October 12, 2001

Date of application acceptance November 1, 2001

Date filed with the Board of Environmental Protection _____

This Order prepared by Mark E. Roberts, Bureau of Air Quality